

A QUINTESSENTIAL PROBLEMATIC ARTIFACT OR GEOFACT?

by

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After having just read the article entitled "An Exfoliated Axe" (Vol. 58, No. 4), it brought to mind an Ohio hematite piece in my collection that has exfoliated exposures similar to the axe. I have never been able to logically determine the primary function or purpose of my specimen, assuming it may have served multiple usages. I consider it as an Amerind artifact, since it does evidence apparent human modification and exhibits surface scarification partially through wear-use. Thus, this piece currently fills the void of a "problematic" artifact within my collection.

The provenance/provenience of this specimen was recorded as being found in June of 1951 along the Mahoning River in Berlin Township, Mahoning County, Ohio. The piece was excavated by a worker while digging the shoreline for the placement of a boat dock on Berlin Lake. It was obtained by Perry & Peggy Israel of Beloit and remained in their collection until it was auctioned on March 31, 1996. This item was listed as a rare "Paint-Cup Stone" and I purchased the piece since it appeared to be rather unique and came with detailed written documentation.

I had this specimen digitally photographed in 2002 and prepared a short analytical report. I then sent my notations and photos on a CD disc to the curator of an archaeology museum in New Mexico for his comments. I later learned that this individual had a background in human osteology, which likely influenced his perspective. I was quite surprised to learn that he thought it could "possibly" be a petrified sternum bone of a vertebrate animal. The following opinions and observations were made by examining the photographs only:

- It appears to exhibit 7 pairs of "assumed" costal notches, which are the socket/ovoid shaped

depressions where the rib bones articulate/attach with the sides of the sternum. The specimen is of a thick tabular form with a maximum thickness of 2" and has a sub-triangular outline of approx. 5 1/2" x 5 1/2" x 6". The number of costal notches and length is approximately the same as a human, but the lateral thickness and elongate costal notches implies an animal our size that was broader shouldered, wider ribbed, and larger boned

- The specimen has possibly went through permineralization, where water dissolves the original organic material (bone) and replaces it with mineral matter (iron and silica). Likely petrification with secondary replacement (organic → silica → iron). The composition is a ferrigenous stone which exhibits a covering/shell of hard hematite and an interior core of impure iron ore with less hardness. The surface finish is of a polished dark brown coloration with yellow ochre prominent in the costal notches. Surface chips expose a dark red iron oxide interior core.
- The surface finish exhibits various scratch marks, fine line striations, and possibly light engravings, including hatchures and other figures implying human markings or configurations. The "jugular-notch" portion of the sternum is the widest portion of the piece and it also bevels to the area of least thickness... so with little modification it evidences a rough formed blade. The blade edge exhibits worn percussion flakes, grinding marks and light abrasive polish, which may suggest "scraper" or "celt" applications. However, if

the piece is stood upward on one of its notched sides, the opposing notched side angles vertically exhibiting the cupular depressions (with yellow ochre oxidation) as possible "paint cups." Each of the sides with notched depressions have two to three possible cups, which exhibit significant curvature/depth and they also evidence many fine line lateral striations via wear usage.

Considering the above assumptions or implications, I had planned to then send this piece for a diagnostic examination. Well, my "curator" contact left his position and my request for a "hands-on" evaluation was then contingent upon the specimen being donated... So I have kept the relic not knowing if it really is a fossilized bone (and of what animal?) that was utilized by prehistoric man, which I guess could be referred to as the coined expression of a "geofact." The overall symmetrical shape and form leads me to believe it is not just some natural occurring geological oddity. Though one might question the possibility that the "assumed" costal notches could have been created through continual or repeated extraction of the yellow ochre core and that the shape took form through extended use as a paint pigment dispenser. Also, the "blade" portion could not have sustained any substantial impact or abrasion considering the fragility of the interior composition. At least for the time being, all of this "conjecture" led me to the title at the top of the page! I would readily consider other possibilities to its identity, usage(s), or a confirmation of the proposed hypothesis.

*Editors Note: The conclusion of most people who have examined this object is that it is a geofact which was slightly altered by prehistoric people.



Figure 1 (Cunningham). Obverse and reverse of entire geofact.



Figure 2 (Cunningham). Close-ups showing abrasions.



Figure 3 (Cunningham). Right and left edges.

